Problem 2

For Problems 1–4 determine the order of the differential equation.

$$\left(\frac{dy}{dx}\right)^3 + y^2 = \sin x.$$

Solution

The order of this ODE is 1 because the highest derivative in the equation is the first derivative.

$$\left(\frac{dy}{dx}\right)^3 + y^2 = \sin x$$